



PROJECT MANAGEMENT CHALLENGE 2009

Sixth Annual NASA Project Management Seminar

ABSTRACT AND BIOGRAPHY

30% Reserve: Bad Rule or Smart Lie?

Every project determines its reserve levels during the initial budget estimating process. Very rarely these reserve levels are calculated or based on any analysis or past performance. For most projects the reserve is based on a programmatic guess of what would be acceptable to the sponsor. Everyone knows: if you request high reserve the sponsor may think that you do not have good cost estimate, if you go too low your project may be considered as high risk. The space industry's rule of thumb of 30% reserve is a good psychological medium between the two extremes but usually leads to budgetary trouble.

A new reserve estimation methodology will be presented and evaluated based on a case study of one of the NASA New Millennium Program space missions. Cost data collected during the project life cycle will be presented showing where this new methodology did well predicting risks and where it came up short. The data will point out how to properly assess risks that come from engineering, technology, programmatic issues, schedule and unknown unknowns. Recommendation on how to calculate your reserve levels will be presented.

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Mr. Chmielewski participated in more than a dozen space missions in his 27 year career with JPL. Recently he studied the life cycle budgets of 36 NASA projects to establish a better way of estimating cost and establishing the reserve levels. He applied his findings to his last 3 projects which came within the budget cap.